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State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
Division of Oil, Gas & Mining

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Inspection Report

Supervisor DRH

Minerals Regulatory Program  
Date of Report: September 19, 2007

Mine Name: Cameron #1 and TME AR Lecy

Permit number: S0470036 and  
S0470088

Operator Name: TME Asphalt Ridge

Inspection Date: September 11,  
2007

Time: About 11:30 AM to 12:30  
PM

Inspector(s): Paul Baker

Other Participants: Several other people were at the site. Those representing the operator included Jim Runquist, David Bower, Bob Trent, Dick Lecy, and Jody Atwood

Mine Status: Active

Weather: Mostly clear, 70s

Elements of Inspection

Elements of Inspection	Evaluated	Comment	Enforcement
1. Permits, Revisions, Transfer, Bonds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Public Safety (shafts, adits, trash, signs, highwalls)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Protection of Drainages / Erosion Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Deleterious Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Roads (maintenance, surfacing, dust control, safety)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Concurrent Reclamation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Backfilling/Grading (trenches, pits, roads, highwalls, shafts, drill holes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Water Impoundments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Soils	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Revegetation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Other	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Purpose of Inspection:**

The operator issued a news release announcing that it will begin continuous oil sand production in December 2007 from the two mines at the south end of Asphalt Ridge. I attended the public announcement representing the Division. The announcement was followed by a tour of the facilities.

**Inspection Summary:**

1. Permits, Revisions, Transfer, Bonds

On August 2, 2007, the Division sent a letter giving final authorization for the TME AR Lecy Mine. This is a small mine nearly adjacent to the Cameron #1 Mine. The Division is allowing these two small mines to be in close proximity because the operator has submitted a Notice of Intention to Commence Large Mining Operations (LMO) for an area that will include both of the small mines.

The operator's most recent submittal of the LMO was received March 23, 2007, and the Division's review was sent July 26, 2007.

9. Soils

The operator has been actively mining the new TME AR Lecy Mine. Topsoil was windrowed around the edges of the pit (across the middle of Photo 2), and overburden from this mine was placed in the Cameron #1 pit (Photo 1).

10. Revegetation

The area that was regraded and seeded in the fall of 2006 is shown in Photos 3 and 4. Most of the vegetation is Russian thistle, but there is some fourwing saltbush, yellow sweet clover, and grass. Perennial cover is not yet what it needs to be, but I was encouraged to see this much growth. I did not look closely at the area seeded in the fall of 2005.

12. Other

Processing equipment has been set up on the Cameron #1 Mine site with ore being brought from the TME AR Lecy Mine. An overview of the mining operation is shown in Photo 5, and the extraction equipment is shown in Photos 6-10. Stockpiled tar sand is fed through a screen after which it goes through two stages of water separation. The processed sand comes out on a conveyor (Photo 9) after which it will be taken back to the pit. The sand still contains some bitumen, and the operator hopes to refine the process so a larger percentage of this material is removed. The sand also contains somewhere around five percent water (I heard two different ranges), and they hope to start removing and recycling more of the water, probably using a centrifuge. The operator is extracting bitumen which could be processed for various products, especially as an asphalt binder or as crude oil.

I expected to see ground water in the pit (Photos 2 and 5), but there was none. Perhaps the water I have previously seen in this area is from a shallow source and has dried up during the summer.

**Conclusions and Recommendations:**

Some water was flowing from the processed sand, and there did not appear to be any effort to contain or control this water. The operator told me in an October 1 e mail that the area has been graded so water returns to a recovery point. The water is restricted by a layer of asphalt from getting into ground water.

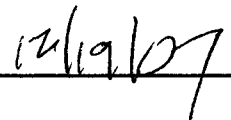
The soil around the edge of the pit should be seeded this fall.

In the next inspection, I would like to look at the area seeded in 2005 to see what is growing.

Inspector's Signature



Date:



PBB:pb

cc: Jim Runquist, TME

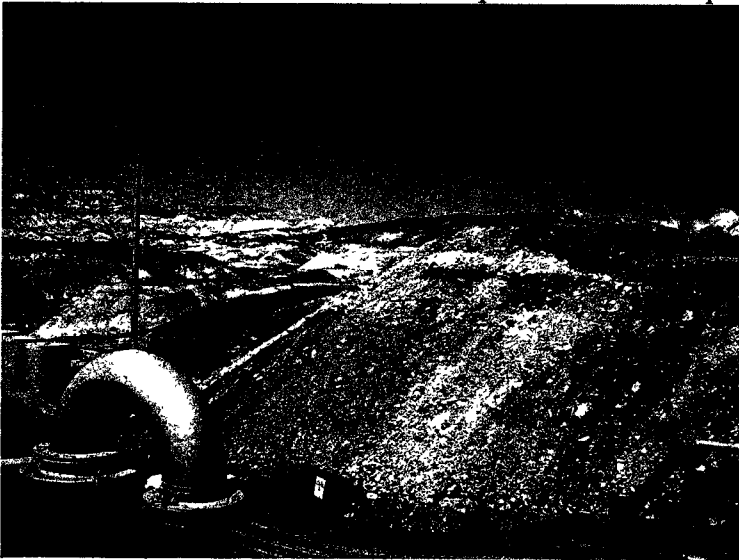
Attachment: Photos

## **ATTACHMENT**

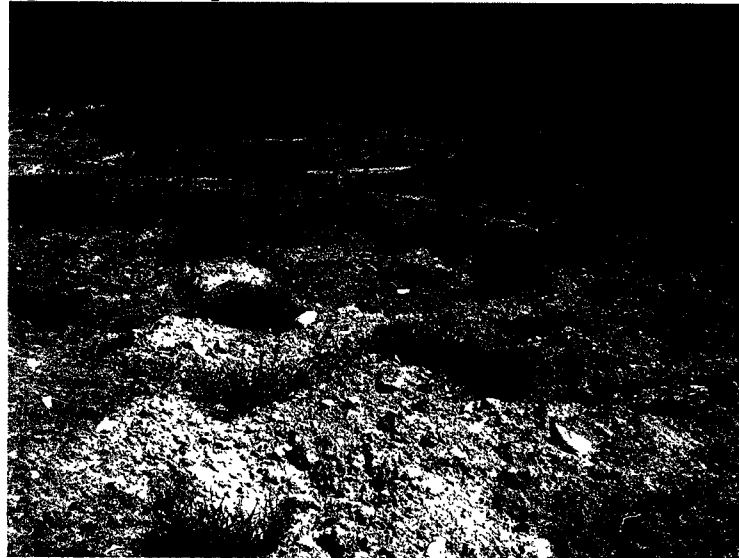
### **Photographs**

**S0470036 and S0470088, Cameron #1 and TME AR Lecy Mines, TME Asphalt Ridge**

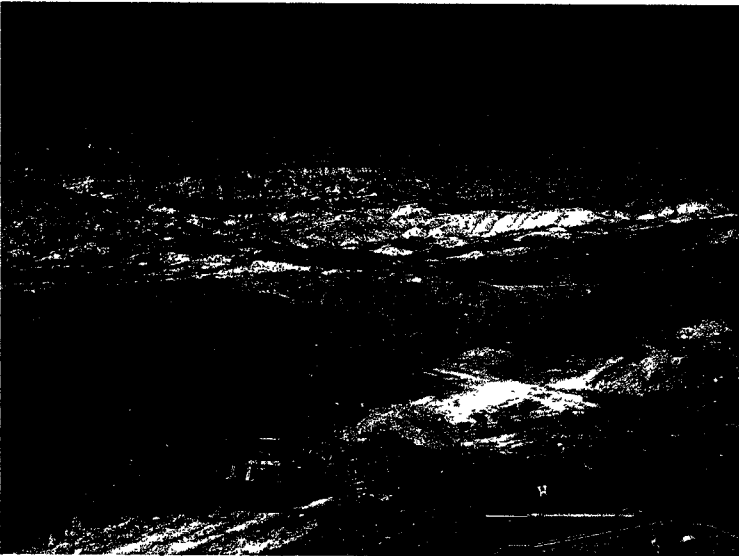
**Inspection Dated: September 11, 2007; Report Dated: September 19, 2007**



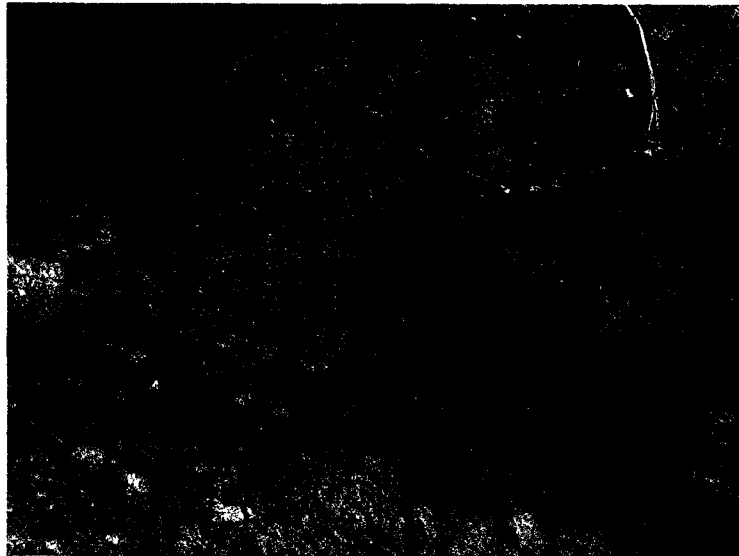
**Photo 1. This is overburden from the TME AR Lecy Mine.**



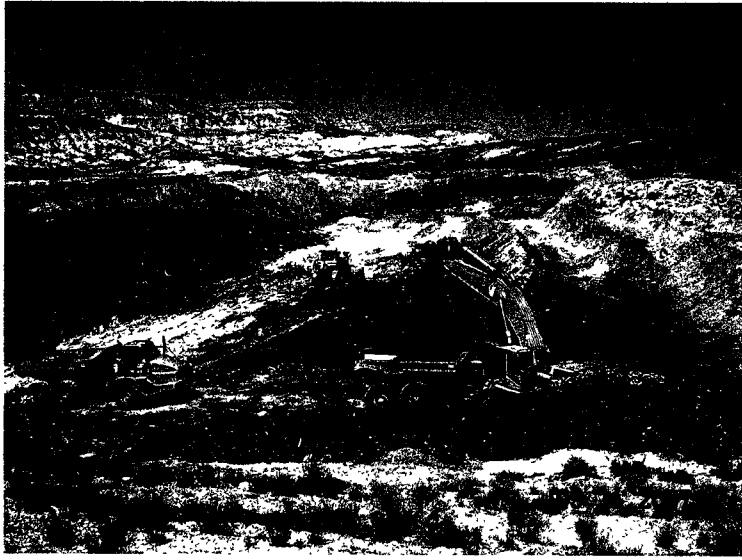
**Photo 3. This is the area that was reclaimed in the fall of 2006. Most of the plants are Russian thistle, but there is some fourwing saltbush, yellow sweet clover, and grass.**



**Photo 2. This is the TME AR Lecy Mine. Soil is stockpiled near the edge of the pit as shown across the center of the photo.**



**Photo 4. Some of the grass in the reclaimed area.**



**Photo 5.** An overview of operations in the TWM AR Lecy pit.



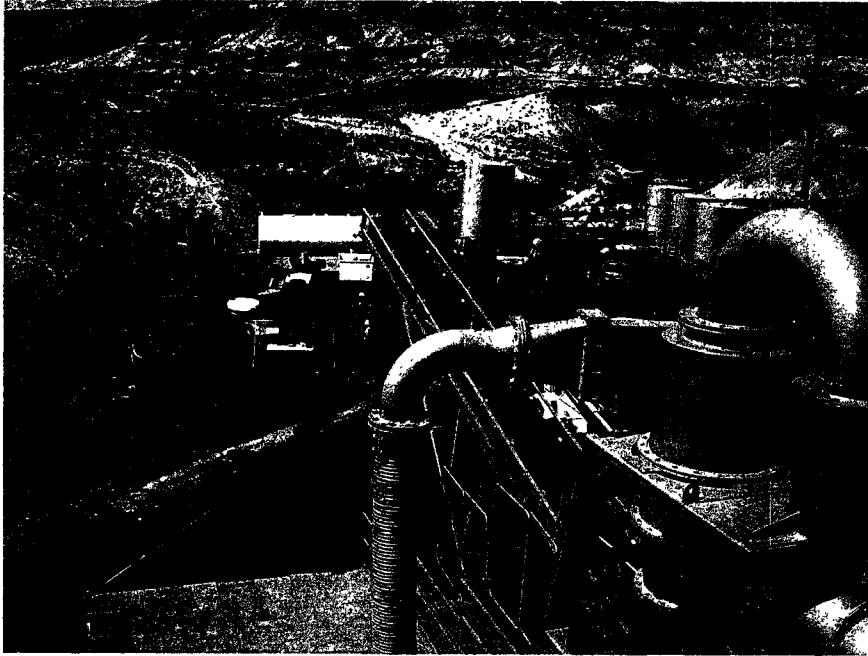
**Photo 7.**



**Photo 6.** Tar sand is stockpiled and fed through a screen to the processing unit.



**Photo 8.** These tanks are next to the processing equipment.



**Photo 9.** This is the main unit of the processing equipment. Note the sand coming off the conveyor and the liquid around the sand pile.



**Photo 10.** This is a view inside the unit shown in Photo 9.